

a signal processing unit, coupled to said at least one input interface, to perform signal processing of the input signals to derive output data in accordance with a first set of predetermined rules, said signal processing unit including a data analysis unit to record selected input signals at predetermined times in accordance with recording rules defined in advance by the control center for short-term monitoring of information derived from the input signals; and

an output interface, coupled to said signal processing unit, to supply the output data from said signal processing unit to said transmitting/receiving unit for at least one of automatic transmission and transmission initiated on request.

17. (NEW) The apparatus as claimed in claim 16, further comprising at least one writeable memory to store at least one of an operating system for the apparatus and the recording rules remotely loaded via said transmitting/receiving unit.

18. (NEW) The apparatus as claimed in claim 16, further comprising a data converter, coupled between said at least one input interface and said signal processing unit, to remove distortion from the input signals and to provide a standard data format for the input signals.

19. (NEW) The apparatus as claimed in claim 18, further comprising an address allocation unit, coupled between said at least one input interface and said data converter to convert source-specific addresses of the input signals to an address format of said data converter.

20. (NEW) The apparatus as claimed in claim 16, wherein the apparatus is installed in a mobile vehicle operated by one of a motor and an engine and has a generator of a supply voltage, and

wherein the apparatus further comprises:

a power supply connection coupled to the generator of the supply voltage in the vehicle, said transmitting/receiving unit and said signal processing unit; and

a detection unit, coupled to said power supply connection and to said data analysis unit, to detect at least whether the generator of the supply voltage source is in operation, and to interrupt said data analysis unit when the generator of the supply voltage source is not in operation.

21. (NEW) The apparatus as claimed in claim 20,

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further comprising a memory, coupled to the signal processing unit, to store a second set of predetermined rules, and

wherein said signal processing unit further includes a data processing unit to record information data derived from the input signals in accordance with the second set of predetermined rules.

22. (NEW) The apparatus as claimed in claim 21, wherein said memory has a first memory area containing a first subset of the predetermined rules for when the generator of the supply voltage source is in operation, and a second memory area containing a second subset of the predetermined rules for when the generator of the supply voltage source is not in operation.

23. (NEW) The apparatus as claimed in claim 21,

further comprising a memory to store predetermined alarm rules, and

wherein said signal processing unit further includes an alarm unit, coupled to said memory and to the data processing unit, to monitor the information data derived from the input signals in accordance with the predetermined alarm rules.

24. (NEW) The apparatus as claimed in claim 23, further comprising an alarm archive to store information on alarms that have occurred.

25. (NEW) The apparatus as claimed in claim 21, wherein the signal processing unit further includes a monitoring unit, coupled to said at least one input interface, to perform direct monitoring of at least one of the input signals and the information data.

26. (NEW) The apparatus as claimed in claim 16, wherein the control center has a control and monitoring system which is also intended for direct control of operating states of a vehicle which is coupled to the apparatus, via control signals.

27. (NEW) The apparatus as claimed in claim 16, further comprising a GPS interface to connect the apparatus to a GPS receiver.

28. (NEW) The apparatus as claimed in claim 16, wherein the input signals are operating data relating to one of a vehicle and a machine.